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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,686	02/18/2004	Curt Galbreath	06005/39181A	8946
4743	7590	04/20/2006	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			LEDYNH, BOT L	
			ART UNIT	PAPER NUMBER
			2862	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/779,686

Applicant(s)

GALBREATH ET AL.

Examiner

Bot LeDinh

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-27 and 31-33 is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6-8,11,16 and 28-30 is/are rejected.
- 7) ☒ Claim(s) 4,9,10,12-15 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/10/05.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

*Bot LeDinh*  
Primary Examiner

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-6, 8, 11, 16, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Alfors (5694039). Alfors discloses the same invention as claimed: A position sensor assembly comprising: a magnetic circuit including a first pole piece and a second pole piece; a primary sensor 134 (Hall sensor, col.2 line 37) disposed between the first and second pole pieces 118 and 120, wherein said first and second pole pieces form a primary flux path through the primary sensor and permit a leakage flux path outside the primary sensor; and a secondary sensor 135 disposed in the leakage flux path. wherein said leakage flux path provides a leakage flux through the secondary sensor to produce a voltage output from the secondary sensor proportional to a voltage output of the primary sensor produced by the primary flux of the primary flux path (Hall sensors 134 and 135 inherently produce voltage outputs proportional to the magnetic flux passing through the sensors; therefore, voltage output from the Hall 135 proportional to a voltage output of the Hall 134); the device also inherently has a voltage detector detecting the voltage outputs of 134-135 in order to compute the angles of the rotational target or shaft; other limitations being clearly shown and described in Figs.5-7 and text.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alfors (5694039). Alfors discloses substantially the same invention as claimed, except for the branded surface of the primary sensor is in contact with the end of at least one of the first and second pole pieces. In the absence of any criticality, it is a matter of design choice to position the branded surface of the primary sensor in contact with the end of at least one of the first and second pole pieces in order to make the device smaller. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Alfors by positioning the branded surface of the primary sensor in contact with the end of at least one of the first and second pole pieces in order to make the device smaller.

***Allowable Subject Matter***

Claims 18-27, 31-33 are allowed.

Claims 4, 9-10, 12-15, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Reference Cited***

Busch et al. is cited for output voltages of Hall sensors changing to an applied magnetic flux.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Bot LeDinh whose telephone number is 5712722231. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 5712722180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bot LeDinh, J.D., Ph.D., D.A.  
Primary Examiner